

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A polishing apparatus for polishing a workpiece by utilizing a fluid including abrasive particles having a dielectric property, comprising:

an electrode ~~comprised of~~ configured to apply processing pressure to the abrasive particles on the workpiece and having a plurality of electrode elements configured to collect and arrange the abrasive particles by a Coulomb force produced by application of an alternating-current voltage to the electrode without application of the alternating-current voltage to the workpiece; and

a driving ~~[[means]] device for driving the electrode, and abrasive particles having a dielectric property disposed between the electrode and a workpiece at a position at which processing pressure is applied by a Coulomb force produced by application of an alternating-current voltage to the electrode.~~

Claim 2 (currently amended): A polishing apparatus according to claim 1, wherein the plurality of electrode elements ~~[[have]]~~ are cylindrical, having different diameters and ~~[[are]]~~ disposed in a concentric circular formation and mutually separated by insulative material.

Claim 3 (original): A polishing apparatus according to claim 1, wherein different voltages are applied to the plurality of electrode elements.

Claim 4 (original): A polishing apparatus according to claim 2, wherein different voltages are applied to the plurality of electrode elements.

Claim 5 (currently amended): A polishing apparatus according to claim 2, wherein the plurality of electrode elements include inner and outer electrode elements, and a lower

voltage is applied to the inner electrode elements and a higher voltage is applied to the outer electrode elements.

Claim 6 (currently amended): A polishing apparatus according to claim 3, wherein the plurality of electrode elements include inner and outer electrode elements, and a lower voltage is applied to the inner electrode elements and a higher voltage is applied to the outer electrode elements.

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Claim 7 (currently amended): A polishing apparatus according to claim 4, wherein the plurality of electrode elements include inner and outer electrode elements, and a lower voltage is applied to the inner electrode elements and a higher voltage is applied to the outer electrode elements.

Claim 8 (currently amended): A polishing apparatus according to claim 1, wherein the electrode ~~[[is]]~~ comprises a cylindrical electrode ~~comprised of~~ having a film-shaped conductor and an insulative layer that are wound around a spindle so that the conductor and insulative layer are alternated around the spindle.

Claim 9 (currently amended): A polishing apparatus according claim 1, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 10 (currently amended): A polishing apparatus according to claim 2, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 11 (currently amended): A polishing apparatus according to claim 3, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive

particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 12 (currently amended): A polishing apparatus according to claim 4, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

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Claim 13 (currently amended): A polishing apparatus according to claim 5, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 14 (currently amended): A polishing apparatus according to claim 6, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 15 (currently amended): A polishing apparatus according to claim 7, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 16 (currently amended): A polishing apparatus according to claim 8, further comprising an insulative tube used to supply a fluid containing a dispersion of said abrasive particles to the workpiece and electrodes provided around the insulative tube to adjust fluid flow from the insulative tube.

Claim 17 (new): A method of polishing a workpiece comprising:

supplying a fluid including abrasive particles having a dielectric property to the workpiece;

providing an electrode configured to apply processing pressure to the abrasive particles on the workpiece and having a plurality of electrode elements configured to collect the abrasive particles; and

applying an alternating-current voltage to the electrode to produce a Coulomb force without applying the alternating-current voltage to the workpiece.

ay Claim 18 (new): A method according to claim 17, wherein said providing includes providing the plurality of electrode elements which are cylindrical having different diameters and disposed in a concentric circular formation and mutually separated by insulative material.

Claim 19 (new): A method according to claim 17, wherein said applying includes applying different voltages to the plurality of electrode elements.

Claim 20 (new): A method according to claim 18, wherein the plurality of electrode elements include inner and outer electrode elements, and said applying includes applying a lower voltage to the inner electrode elements and applying a higher voltage to the outer electrode elements.

Claim 21 (new): A method according to claim 17, wherein said providing includes providing a cylindrical electrode having a film-shaped conductor and an insulative layer by winding the film-shaped conductor and the insulative layer around a spindle alternately.

Claim 22 (new): A method according to claim 17, further comprising:
providing an insulative tube configured to supply a fluid containing a dispersion of the abrasive particles to the workpiece; and
providing electrodes around the insulative tube to adjust fluid flow from the insulative tube.